



King's Research Portal

DOI:

[DOI 10.1080/14767058.2018.1547704](https://doi.org/10.1080/14767058.2018.1547704).
[10.1080/14767058.2018.1547704](https://doi.org/10.1080/14767058.2018.1547704)

Document Version

Peer reviewed version

[Link to publication record in King's Research Portal](#)

Citation for published version (APA):

Carlisle, N. H., Chandiramani, M., Carter, J. C., & Shennan, A. H. (2018). Reply: Evaluation of the quantitative fetal fibronectin test and PAMG-1 test for the prediction of spontaneous preterm birth in patients with signs and symptoms suggestive of preterm labor. *The Journal of Maternal-Fetal & Neonatal Medicine*. <https://doi.org/DOI.10.1080/14767058.2018.1547704>, <https://doi.org/10.1080/14767058.2018.1547704>

Citing this paper

Please note that where the full-text provided on King's Research Portal is the Author Accepted Manuscript or Post-Print version this may differ from the final Published version. If citing, it is advised that you check and use the publisher's definitive version for pagination, volume/issue, and date of publication details. And where the final published version is provided on the Research Portal, if citing you are again advised to check the publisher's website for any subsequent corrections.

General rights

Copyright and moral rights for the publications made accessible in the Research Portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognize and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the Research Portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the Research Portal

Take down policy

If you believe that this document breaches copyright please contact librarypure@kcl.ac.uk providing details, and we will remove access to the work immediately and investigate your claim.

Reply: Evaluation of the quantitative fetal fibronectin test and PAMG-1 test for the prediction of spontaneous preterm birth in patients with signs and symptoms suggestive of preterm labor

N. Carlisle, M. Chandiramani, J. Carter & A. H. Shennan

To cite this article: N. Carlisle, M. Chandiramani, J. Carter & A. H. Shennan (2018): Reply: Evaluation of the quantitative fetal fibronectin test and PAMG-1 test for the prediction of spontaneous preterm birth in patients with signs and symptoms suggestive of preterm labor, The Journal of Maternal-Fetal & Neonatal Medicine, DOI: [10.1080/14767058.2018.1547704](https://doi.org/10.1080/14767058.2018.1547704)

To link to this article: <https://doi.org/10.1080/14767058.2018.1547704>



Published online: 10 Dec 2018.



Submit your article to this journal [↗](#)

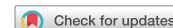


Article views: 8



View Crossmark data [↗](#)

LETTER TO THE EDITOR



Reply: Evaluation of the quantitative fetal fibronectin test and PAMG-1 test for the prediction of spontaneous preterm birth in patients with signs and symptoms suggestive of preterm labor

Sir,

Ravi et al. boldly state that quantitative fetal fibronectin (fFN) with a cutoff threshold of 200 ng/mL has no clinical advantage, despite having a higher positive predictive value (PPV). The authors assume that a threshold of 200 ng/mL would be used to “rule out” preterm birth and fail to appreciate that the strengths of quantitative fFN use in clinical practice do not rely on arbitrary cutoffs.

Through using the entire range of quantitative fFN, predictive abilities and in turn clinical utility is not limited to a fixed threshold. High levels of quantitative fFN can be used to improve PPV, while low levels can be used to rule out imminent delivery. In clinical practice, ruling out imminent delivery is far more important; clinicians only withhold treatment for women at very low risk, but will treat most women at moderate risk or higher [1].

The absence of a power calculation, a small sample of 72 patient and an event rate of only three women who delivered within 7 d of presenting limits the statistical certainty of their findings. Although the authors acknowledge these shortcomings within the discussion, they state that the “PAMG-1 test is a better predictor of spontaneous delivery” and claim that the “PAMG-1 test was statistically superior”. Both statements are misleading.

The authors found that both PAMG-1 and fFN (at 10 and 50 ng/mL) have the same sensitivity (67%). Both have poor sensitivity – one third of women who go on to have a preterm birth would be falsely reassured. However, the wide confidence interval (67%, CI 9.43–99.6) make these statistics (and all of their statistics) almost meaningless; this implies in women with actual preterm birth, over 90% could have a negative test, or the test is near perfect. Bigger studies are needed.

By combining quantitative fFN, cervical length and medical history, we have been able to improve prediction statistics to clinically useful levels in appropriately powered studies [2,3]. These are currently being trialed in clinical practice.

Disclosure statement

AHS is currently performing trials supported financially, paid to institute (Hologic, Biomedica), and donated samples (Partosure) to compare fFN, actim partus and Partosure. He is an advisor to NICE on preterm prediction tests.

NC and MC received financial assistance to cover expenses, paid to institute, to provide an educational talk on preterm birth from Hologic, USA. The other authors did not report any potential conflicts of interest.

References

- [1] Committee on Obstetric Practice. Committee Opinion No. 713: antenatal corticosteroid therapy for fetal maturation. Committee Opinion No. 713. American College of Obstetricians and Gynecologists. *Obstet Gynecol.* 2017;130:e102–e109.
- [2] Kuhrt K, Smout E, Hezelgrave N, et al. Development and validation of a tool incorporating cervical length and quantitative fetal fibronectin to predict spontaneous preterm birth in asymptomatic high-risk women. *Ultrasound Obstet Gynecol.* 2016;47:104–109.
- [3] Kuhrt K, Hezelgrave N, Foster C, et al. Development and validation of a tool incorporating quantitative fetal fibronectin to predict spontaneous preterm birth in symptomatic women. *Ultrasound Obstet Gynecol.* 2016;47:210–216.

N. Carlisle

Department of Women and Children's Health, School of Life Course Sciences, King's College London, London, UK

 naomi.h.carlisle@kcl.ac.uk

M. Chandiramani

St Thomas' Hospital, London, UK

J. Carter

A. H. Shennan

Department of Women and Children's Health, School of Life Course Sciences, King's College London, London, UK

Received 7 June 2018; accepted 9 November 2018

© 2018 Informa UK Limited, trading as Taylor & Francis Group